



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/856,314	05/21/2001	Joon Young Yoon	0255-0003	6556

7590 04/01/2003  
TransPotomac Plaza  
1033 North Fairfax Street Suite 306  
Alexandria, VA 22314

EXAMINER

SALVATORE, LYNDIA

ART UNIT	PAPER NUMBER
----------	--------------

1771

DATE MAILED: 04/01/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

mk

**Office Action Summary**

Applicati n No.

09/856,314

Applicant(s)

YOON ET AL.

Examiner

Lynda M Salvatore

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter. For example, due to the literal translation, the phrases a warp knit comprising three layers (i.e., front, intermediate, and back), raising the warp knit (Applicant's specification, Page 4, lines 5-20), a warp knit having the density of 55 each/inch (Applicant's specification, Page 15, lines 10-12), and writing effect (Applicant's specification, Page 2, lines 10-12) are unclear.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not disclose how warp knit fabric is constructed have a front, rear surface and intermediate layers. Since the specification lacks adequate disclosure for a three layer structure for purposes of examination these claims will be interpreted as a warp knit comprising ultra fine, elastic, and synthetic, or high shrinkage yarns in any structural combination. Claims 2-7 are further rejected for their dependency on claim 1.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. With regard to claim 1, it is unclear to the Examiner what constitutes the claimed front, rear, and intermediate layer of the warp knit. In other words, it is not clear how the three-layer construction is achieved with a warp knit. Does the Applicant intend to make a knit with a three bar knitting machine or does the warp knit merely comprise different types of yarns? Claim 1 is further indefinite because it is unclear to the Examiner if the Applicant is claiming a “synthetic yarn” or a “high shrinkage yarn”, because all “synthetic yarns” are not necessarily “high shrinkage yarns”. Furthermore, the term “high shrinkage” is a relative term which renders the claim indefinite. The term “high shrinkage” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

7. With regard to claims 4, 8 and 9, it is unclear to the Examiner if the Applicant is claiming a “synthetic yarn” or a “high shrinkage yarn”, because all “synthetic yarns” are not necessarily “high shrinkage yarns”. Furthermore, the term “high shrinkage” is a relative term which renders the claim indefinite. The term “high shrinkage” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Art Unit: 1771

8. Claim 8 is further rejected because the method steps of “raising”, “pre-heating”, “heating continuously”, and “buffing” are not understood by the Examiner. With specific regard to the “pre-heating” and “heating continuously” limitations, it is not clear to the Examiner what the “pre-heating” precedes, how long the Applicant intends to “heat continuously” (e.g., day, week, eternity), and the temperature ranges for each said heating steps. Additionally, it is unclear to the Examiner in what way the warp knit is “raised” and “buffed”. Without such limitations, claim 8 and dependent claim 9 will not be further examined on the merits.

9. With regard to claim 5, it is unclear to the Examiner how the unit of “ 40-80 each/inch” defines the density of the processed warp knit. In other words, density is a function of mass per volume not unit per length. Due to this inconsistency, claim 5 will not be further examined on the merits.

10. Claims 1-9 are further rejected for the phrase “excellent touch”. In claims 1-9, “excellent touch” is a relative term which renders these claims indefinite. The term “excellent touch” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

### ***Claim Rejections - 35 USC § 102/103***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1771

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1,2,4, and 6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Scholz et al., US 5,512,354.

The patent issued to Scholz et al., is directed to a knit fabric construction comprising a nonfiberglass microdenier yarn in combination with a heat shrinkable yarn or a stretch yarn, and alternatively a stiffness controlling yarn (Abstract). The fabric construction is suitable for use in orthopedic applications such as casting materials (Column 2, 63-65). Scholz et al., teaches that the nonfiberglass microdenier yarns are formed from fibers or filaments having a diameter of no greater than 1.0 denier (Column 7, 1-10). Suitable microdenier yarns staple fibers and filaments of polyester, polyamide, polyolefin or rayon (Column 7, 15-20). Scholz et al., further teaches that microdenier yarns may be made using a combination of the above aforementioned filament materials (Column 7, 39-43). Scholz et al., also discloses that alternatively stretch yarns, such as elastic stretch yarns can be used in the wale direction, to impart extensibility. Suitable elastic yarns include Spandex (Column 24-32). Furthermore, to provide conformability of the fabric comprising the microdenier yarns, Scholz et al., teaches using highly texturized, heat shrinkable, extensible, thermoplastic yarns in the wale direction to provide the fabric with sufficient stretch without creating a high elastic rebound force (Column 8, 50-68). With regard to claims 2 and 4, in a preferred embodiment, Scholz et al., teaches a three bar knit having a polyester heat shrinkable yarn ranging from 30-70 weight percent in the front bar and a polyester micro-denier

Art Unit: 1771

fiber ranging from 30-70 weight percent in the back bar (Column 16, 5-10). Scholz et al., teaches that the heat shrinkable yarn can be made of fibers and filaments of up to about 6 denier.

Preferably, the heat shrinkable yarns are made of polyester, polyamide, and polyacrylonitrile fibers or filaments (Column 9, 41-46). The stiffness controlling yarn can be a multi-filament or mono-filament of polyester, polyamide such as nylon or polyolefin (Column 11, 6-36). Scholz et al., teaches preparing the fabric by a warp knitting and heat shrinking process followed by a calendaring to reduce thickness (Column 3, 40-45).

Although, Scholz et al., does not explicitly teach the claimed recovery rate, it is reasonable to presume that said recovery rate property is inherent to the invention of Scholz et al. Support for said presumption is found in the use of like materials (i.e., polyester heat shrinkable yarns, elastic Spandex yarns and micro-denier yarns staple fibers and filaments of polyester, polyamide, polyolefin or rayon). The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594

In addition, the presently claimed recovery rate property would obviously have been present once the Scholz et al., product is provided. *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977)

### ***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1771

14. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scholz et al., US 5,512,354.

With regard to claim 3, Scholz et al., does not specifically teach the weight content of the spandex elastic, however it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the content of said yarns used. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

15. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scholz et al., US 5,512,354.

With regard to claim 7, Scholz et al., does not specifically teach co-polyester high shrinkage yarn, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use known co-polyester high shrinkage yarns. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416

### ***Conclusion***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.





Application/Control Number: 09/856,314

Page 8

Art Unit: 1771

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

ls   
March 24, 2003

  
CHERYL A. JUSKA  
PRIMARY EXAMINER